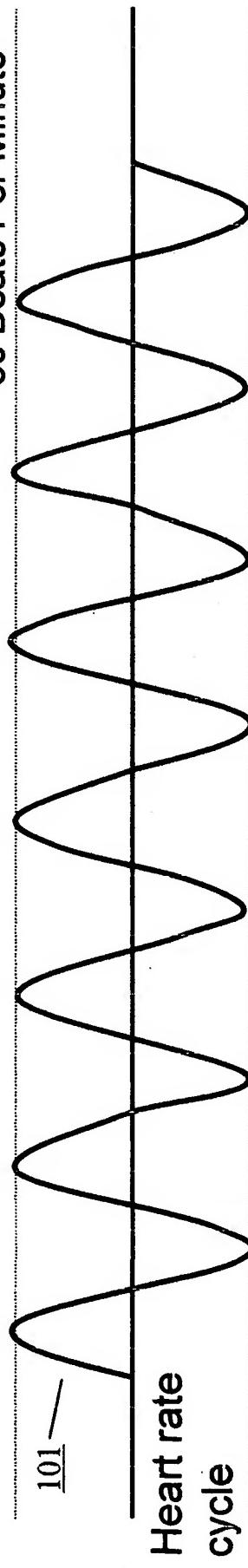




The heart has it's own rhythm or tendency toward rhythm.

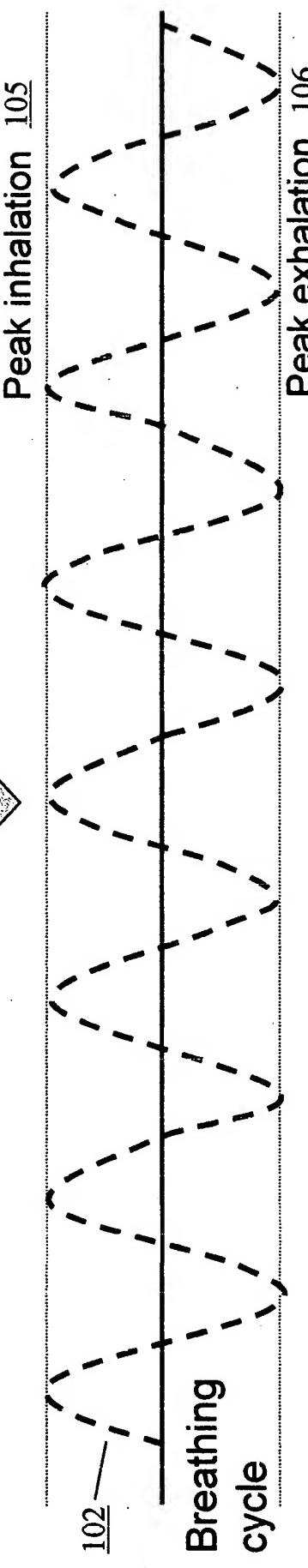
103  
80 Beats Per Minute



50 Beats Per Minute  
104



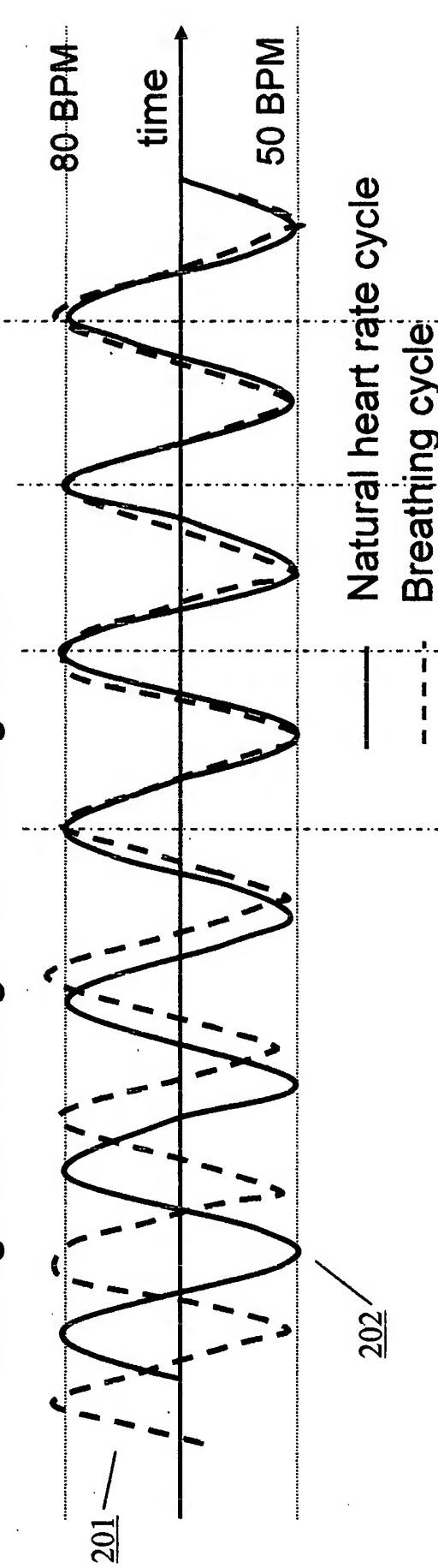
There is a relationship between the heart cycle and the breathing cycle.



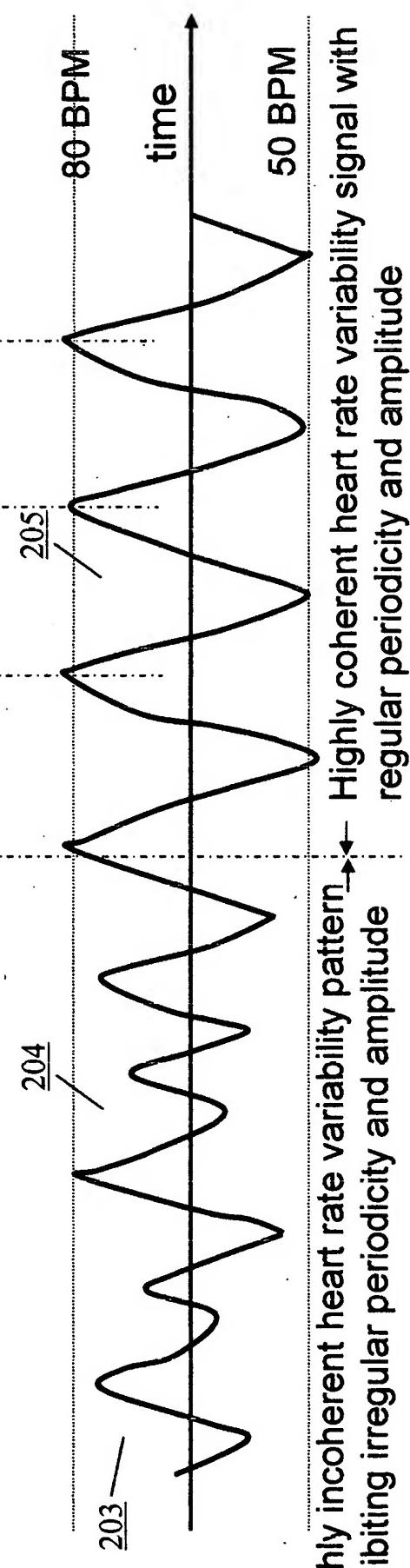
The breathing cycle has a separate but related rhythm. This rhythm can be shorter or longer than the natural heart rhythm and change dramatically with activity, etc.

FIGURE 1

Depicts the breathing cycle and the natural heart rate cycles moving from misalignment to alignment.

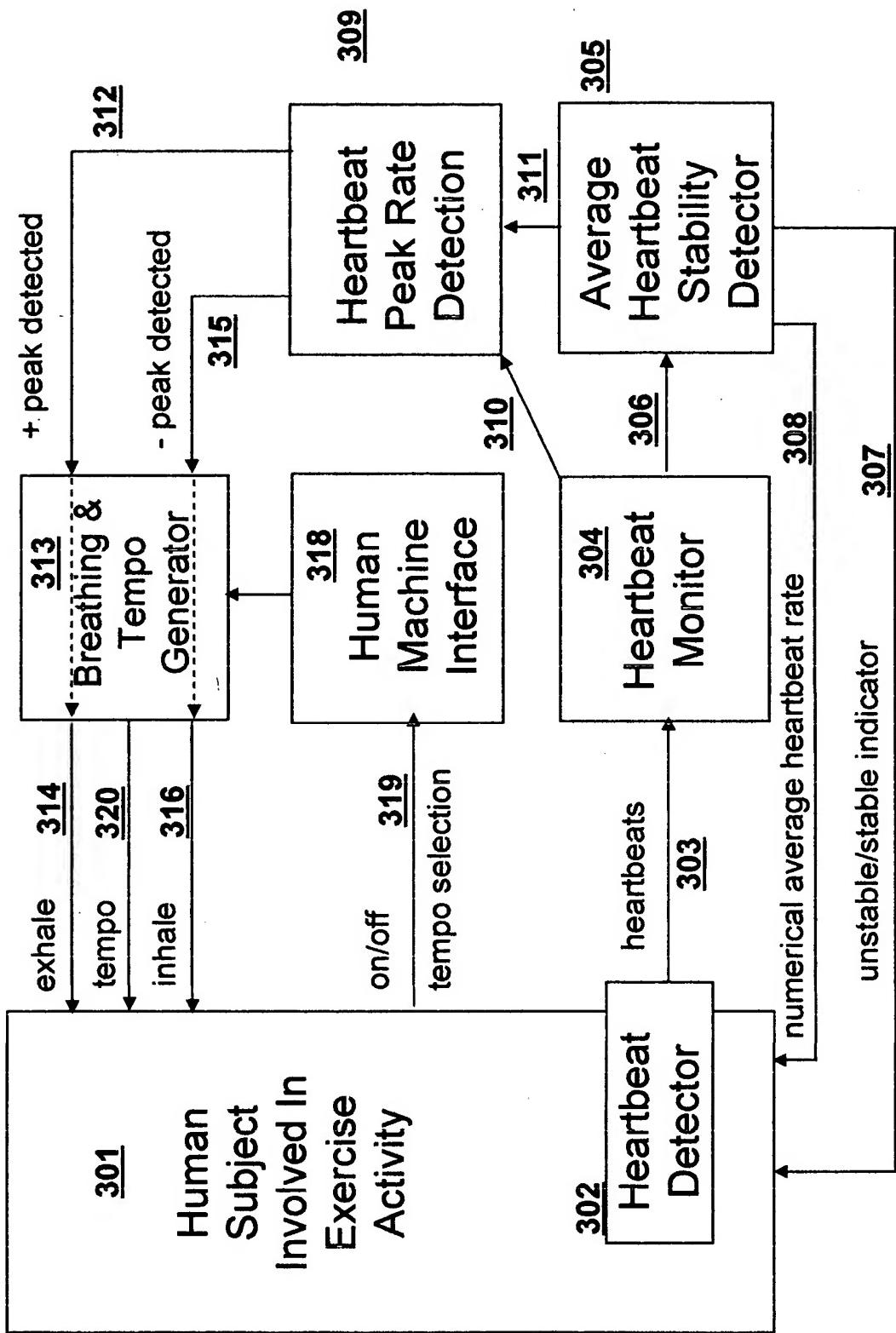


Resultant heart rate variability pattern:

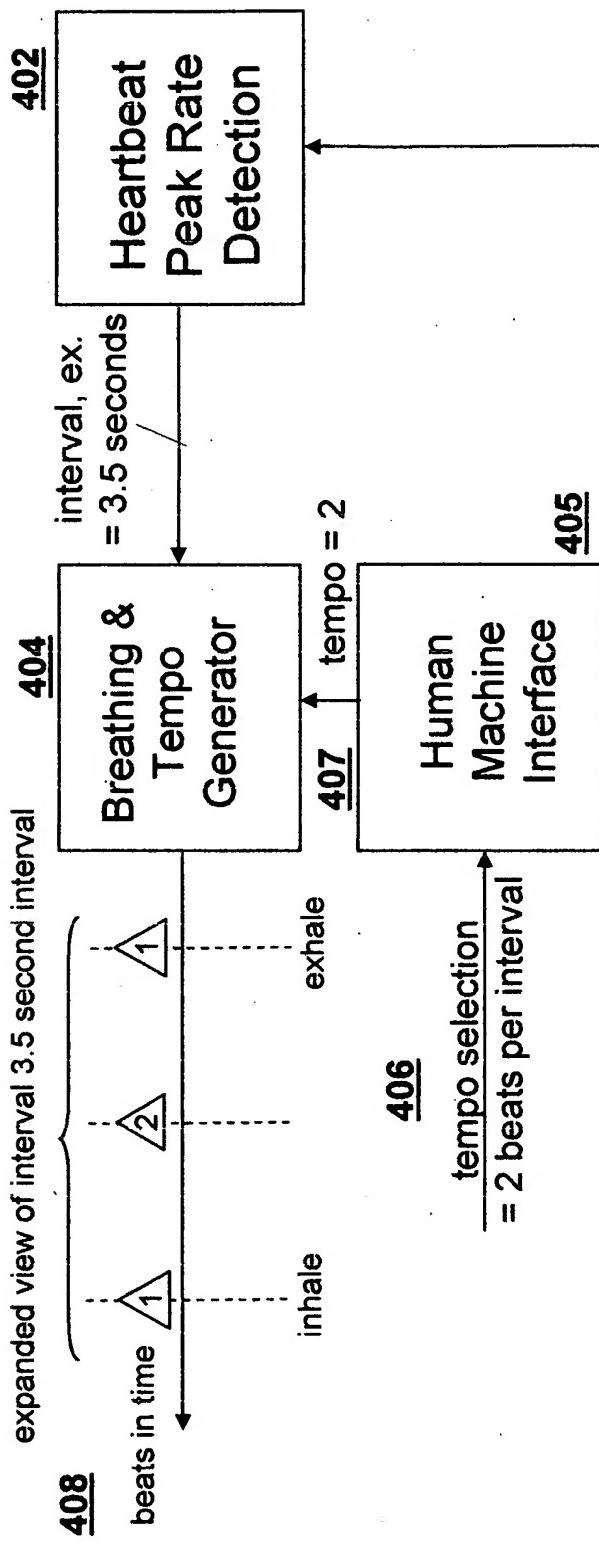


Highly incoherent heart rate variability pattern → Highly coherent heart rate variability signal with regular periodicity and amplitude exhibiting irregular periodicity and amplitude

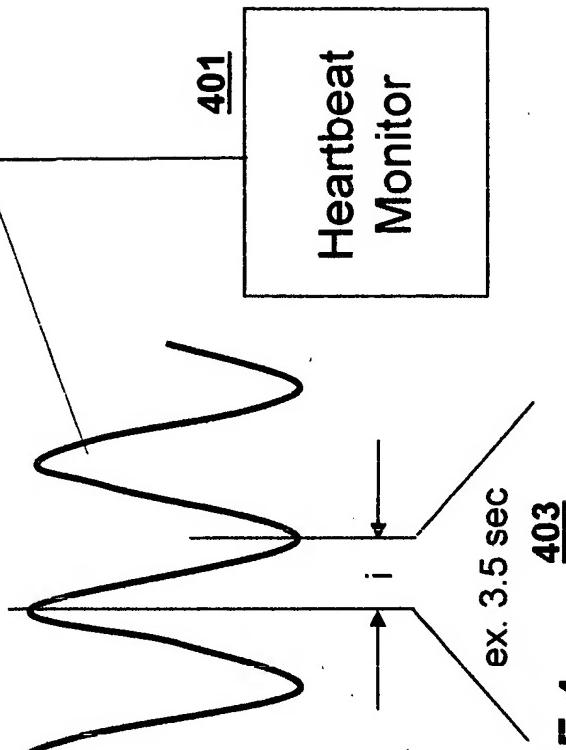
FIGURE 2



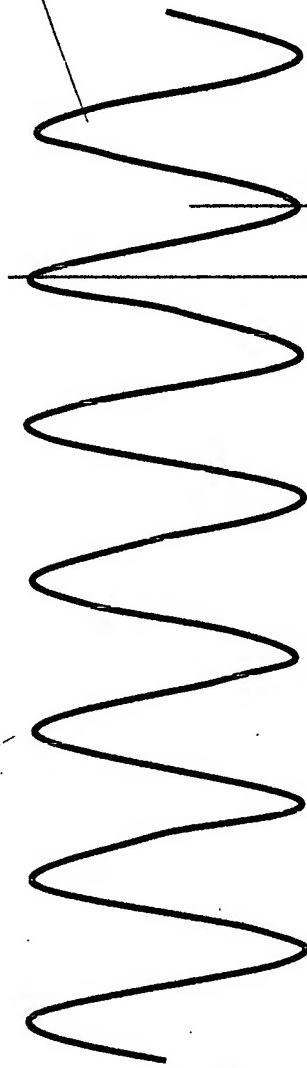
**FIGURE 3**



peak positive heartbeat rate



Heartbeat rate as  
seen at the input to  
heartbeat peak rate  
detector 402



**FIGURE 4**